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ABSTRACT

The New York State Library is conducting two regional pilot programs to provide on-line information services to public, academic, and special library patrons. These procedures and guidelines were written for reference librarians in participating libraries who will act as the intermediaries between their patrons and the search analysts at the State Library who will do the actual searching. Topics covered in the guidelines are suitability of a topic for a computerized literature search, turnaround time for receipt of citations, reference interview, costs, format used to transmit search requests, and collection of statistics for the pilot program. Data bases that will be available to patrons for the program are MEDLARS, ERIC, BIOSIS Previews, Psychological Abstracts, and the New York Times Information Bank. Sample search request forms are included. The appendices contain brief overviews of the subject and scope of materials indexed in the six data bases, computerized literature searching, Boolean search logic, and an outline of Dewey Decimal Classification codes used by the State Library interlibrary loan network. (JPF)

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PROCEDURES FOR PROCESSING REQUESTS FOR COMPUTERIZED
LITERATURE SEARCHES

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TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC) AND
USERS OF THE ERIC SYSTEM "

The University of the State of New York

THE STATE EDUCATION DEPARTMENT

Division of Library Development

99 Washington Avenue

Albany, New York 12230

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Introduction

The State Library will provide computerized literature searches to public, academic and special library patrons from the following bibliographic data bases: MEDLARS, ERIC, BIOSIS Previews, Psychological Abstracts and The New York Times Information Bank.* By requesting computerized literature searches from the State Library, Reference Departments will be able to provide a customized literature search which they would have neither the staff nor time to normally offer. Librarians further benefit in that they have the opportunity to use these searches to test if there is a demand for the service within their institution before committing themselves to the expense of purchasing data base services and of leasing equipment and communication lines. For some libraries it will never be economically feasible to support such a service and their only way to offer these searches is to share part of the cost with a larger institution which already has access to data base services. In either case, reference librarians will gain experience in utilizing a new technology and in integrating this new service into the total reference function. Libraries participating in this program through one of the two regional pilot project programs will be able to provide searches free to their patrons by utilizing LSCA funds to pay partially subsidized fees to cover State Library expenses in providing this extended reference service.

The Role of the Reference Librarian in Processing the Search

The State Library will be able to absorb the increased workload involved in servicing this new clientele for data base searches (i.e. in addition to the physicians, lawyers, State Agency personnel, and Legislators and their staffs which the State Library is mandated by law to serve) by having reference librarians in participating libraries act as intermediaries between their patrons and the search analysts at the State Library who will do the actual searching. The role of

* For a detailed explanation of the scope of the data base services see the section on Cost of Computerized Literature Searches.

intermediary involves translating the patron's request into a concise natural language statement, partially formulating search strategy by choosing appropriate subject terms from controlled vocabulary lists (if available), and forwarding the search requests to the State Library.

In order to act as an intermediary, the reference librarian must be familiar with the following facts: what types of requests are suitable for a computerized literature search, what subject matter, types of materials and years of publication are covered in each of the data bases,* what information about the patron's search topic must be transmitted to the search analysts to insure the most effective search, what is the turnaround time between the request of a search and the receipt of computer print-out of citations, and what format is used to transmit the request to the State Library. The following procedures will answer the above questions and provide guidelines for reference librarians who will provide this service for their patrons.

Suitability of a Topic for a Computerized Literature Search

A search topic is suitable for a computerized literature search when the topic includes two or more concepts which must be present in the same citation in order to retrieve relevant documents.

A search topic is not suitable for a computerized literature search when it is represented by a single subject term listed in the printed index or when it is for a listing of articles by an author. In these cases, it is more efficient to xerox the applicable pages in the index. The same approach would hold true if the topic is represented by one subheading of a particular subject which is listed in the printed index. An exception to the rule of not requesting a search on a single term is made when the term is not listed in the printed index or in the controlled vocabulary thesaurus. The indexing in the bibliographic data base is more extensive

* For further information refer to the descriptions of The New York Times Information Bank and the data bases offered by the State University of New York Biomedical Communication Network in Appendix I.

than in the printed index and often provides the only direct access to terms not included in the printed indexes. (For further information see the description of computerized literature searching in Appendix 11.)

Turnaround Time for Receipt of Citations

At the beginning of the reference interview, the librarian should determine when the patron needs the citations and if there is sufficient turnaround time for the request to be sent to the State Library, the search run, the citations mailed back to the requesting site, and for the librarian to contact the patron. The reference librarian will receive the computer print-out of citations within six to ten days of submitting the search request. The turnaround time will be effected by how swiftly the request is sent to the State Library, how fast it can be processed at the State Library, and the speed of mail delivery of the citations. Libraries participating in the pilot project will send their requests to a NYSILL transmission site or sites in their 3R's region. Since the transmission site is only contacted once a day for interlibrary loan requests this may add a day's delay to the process. Once the request is received at the State Library, every effort will be made to process it on the same day. Same day processing of requests may not be feasible due to such factors as heavy search analyst workload, computer or terminal malfunction, and holiday schedules. After the search has been input at the access terminal, printing of citations is done off-line in the evening and the print-out will be mailed to the requesting library site the next day. This schedule for printing and mailing citations will be altered on the occasions that the SUNY Biomedical Communication Network delays the printing of the citations or if the search is aborted due to machine failure or an error at the time the search was input.

The turnaround time for searches done on the New York Times Information Bank for reference questions which require a specific answer will be different than

the time taken to process multi-concept subject searches. Once the request is received at the State Library it will be processed the next day and the search analyst will telephone the requesting site and give them the required information. Note that reference searches will only be processed for current events that have occurred since the last uncumulated portion of The Times Index was printed.

It must be taken into account that the patron's receipt of the citations is just the first step in the research process which may involve procuring materials through interlibrary loan which could add another one to three weeks.

Reference Interview to Determine the Search Topic

Once it has been determined that the patron has a suitable topic and that there is sufficient time to process the request, the reference librarian should encourage the patron to give a full statement of the search topic. In this first stage, avoid terms the patron thinks should be used in the search and concentrate on defining the topic. After the topic has been established, the interviewer should elicit information on the following aspects of the search topic:

1. alternate ways of describing the topic and synonymous search terms
2. definitions for technical terms mentioned in the search statment
3. geographic, age, sex, human or animal, grade level restrictions on the topic or other subject terms that the patron does not want included in the retrieved citations
4. years the patron wants to search in the data base
5. for searches in the MEDLARS and Psychological Abstracts data bases specify whether the patron requires English language articles only or what foreign language citations would be acceptable
6. determine how the citations will be used, i.e. a few articles on a topic for general information, a term paper, or a thorough research study
7. determine patron's preference for either: 1) a narrow search with fewer retrieved citations which exactly meets the specified search requirements; or 2) a broader search with more general citations and more complete coverage.
8. a recent, relevant citation for a journal article which outlines the

approach that the patron wishes to take toward the research topic

(Note: No citation is needed for searches done on the New York Times Information Bank)

The reference librarian may wish to use a dictionary listing terms used in the subject discipline to gain further information or to determine that the librarian and the patron have the same understanding of the topic. It may also be necessary to work with the patron to either broaden or narrow the request using the aspects of the search topic as guidelines. If the patron does not have a citation, ask the patron to choose one from the printed index. Review of the printed index in the presence of the reference librarian may also help the patron to broaden or narrow the search topic and to suggest other appropriate search terms.

For searches on the ERIC, MEDLARS, and Psychological Abstracts data bases consult the thesaurus of controlled vocabulary which lists the indexing terms used for both the printed and automated index or consult the printed index to choose terms that best describe the patron's search topic. The thesaurus is preferred because it provides a subject authority list with scope notes and cross references indicating a broader and narrower approach as well as see references from terms not used to those that are used. For searches on the above data bases, terms must be selected from either the thesaurus or the appropriate printed index or the request will not be processed. When using a printed index, check several year cumulations to determine the appropriate terms since the complete list of terms does not appear in any one year cumulation. The following is a list of the acceptable thesauri and indices:

MEDLARS

Medical Subject Headings - Annotated Alphabetic List Index Medicus

ERIC

Research in Education

Current Index to Journals in Education

Thesaurus of ERIC Descriptors

Psychological Abstracts Data Base

Psychological Abstracts

Thesaurus of Psychological Index Terms

For searches on the BIOSIS Previews data base and The New York Times Information Bank do not use the printed indices to choose terms, but suggest synonyms; and for BIOSIS, describe plants and animals by their classification as well as by their common names. The New York Times Information Bank has a very broad, general indexing scheme and synonyms are of more help in defining the topic than index terms. BIOSIS Previews does not have a controlled vocabulary and free text searching is used as one means of retrieving citations.

Once selected, these terms can be used to formulate a search strategy by using Boolean logic. Boolean logic provides a means of expressing the specific relationship among terms which must appear in the retrieved citation to make it relevant to the patron's search topic. The computer utilizes this strategy to compare and sort through large quantities of citations within the data base to extract only those citations which meet the given specifications.

As an example of this process, posit that a researcher is interested in the use of lithium to treat schizophrenia. When lithium is searched as a single term there are 1200 citations found in the data base, and schizophrenia, searched as a single term, produces 2,500 citations. When the two terms are connected by the Boolean logical operator "AND" the computer retrieves 43 citations in which both terms must be present in the text of the citation. This example illustrates the function of the logical operator "AND" which is to require that both terms be present in a retrieved citation. The Boolean logical operator "OR" is used when the patron is interested in citations that contain either one term or the other, but both terms do not have to appear in the same citation. The logical "OR" is used to search under several synonymous terms or to search under terms which are not synonymous but are

related within the context of the search topic. From these two descriptions it can be seen that "OR" is inclusive and broadens the search, while "AND" is exclusive and narrows the search.

The two logical terms can be and are often used in the same search strategy:

language skills OR speech skills AND cultural disadvantaged
AND children OR minority group children

Use of the logical operator "NOT" will exclude any citation containing a specified term. In the previous example, the patron may not be interested in migrant children and can formulate the search strategy to exclude the subject term:

...children OR minority group children NOT migrant children

For a further explanation of Boolean logic see Appendix III.

The reference librarian will find Boolean logic helpful in defining the patron's research topic but its use is optional and it need not be included in the request for a computerized literature search. The concise natural language statement, if prepared correctly, will provide the necessary information so that the search analyst at the State Library can use it as a basis to formulate the search strategy.

The search analyst will use the statement, the suggested subject terms, the relevant journal citation, and, if provided, the suggested search strategy to formulate the final search strategy which will be input at the access terminal. The recent journal article citation can provide a great deal of help in formulating an effective search strategy because the search analyst can retrieve it on-line and use the indexing terms assigned to that citation to retrieve other similar citations. In the process of running the interactive on-line search, the search analyst may choose different terms or alter the suggested search strategy on the basis of feedback from what is available in the data base. A search which retrieves relevant citations involves an effective interaction between the elements within the search strategy and the citations available within the data base.

After the interview for the search is completed, the reference librarian will have the opportunity to determine if the patron needs further information on reference tools and other indices which would compliment and broaden the scope of the computerized literature search.

Factors Influencing the Success or Failure of a Computerized Literature Search

A computerized literature search can be a success only if the patron's request statement adequately represents the information that is needed and if the reference librarian correctly interpretes what the patron wants. The degree to which the citations will meet the patron's information needs is influenced by the following factors:

1. the patron's ability to describe the search topic
2. what the patron thinks the information retrieval system is capable of retrieving, because this will influence what he/she will request
3. the success of the reference librarian in determining what the patron wants, in formulating the concise natural language statement, and in choosing appropriate subject terms
4. the ability of the reference librarian to recognize all possible approaches to the topic and to aid the patron in broadening or narrowing the search topic
5. the ability of the search analyst to process a request on an information retrieval system and to formulate a search strategy which is based on the reference librarian's interpretation of the patron's information needs
6. the suitability of the data base's subject content to the patron's information needs
7. the suitability of indexing terms used in the data base to express the patron's information needs

The use of a computer to search a date base does not guarantee that it will retrieve 100% of the citations on a topic which are relevant to a patron's information needs. F. Wilfried Lancaster in Information Retrieval Systems: Characteristics, Testing, and Evaluation has stated that any information retrieval system which achieves a balance of a 65% retrieval of the available citations which meet the specifications and a 65% relevancy to the subject

terms input in the search strategy is operating near to its peak of efficiency. The computer can fail to retrieve all citations on a given topic because the patron's search statement was too restrictive and excluded certain subject terms. Other citations may be missed due to poor search strategy formulation, lack of appropriate indexing terms to express the desired topic, or the indexer's omission of a relevant term. Citations can fail to be relevant to the patron's information needs even though all the specified terms appeared in the citation. This can happen when there is a false coordination of terms and the subject terms while appearing in the citation are essentially unrelated. It can also happen when an incorrect relationship has been established among the subject terms in the search strategy and the retrieved citations do not relate the subject terms in a way that satisfies the patron's information needs.

The interactive on-line search process mitigates some of above mentioned failures because the search analyst can alter the subject terms and search strategy when the citations retrieved fail to meet the patron's search request. Many of factors causing a computer's failure to retrieve relevant citations or all the available citations, also effect the manual search. Yet, if the search strategy adequately represents the patron's needs, and allowing for a necessary percentage of irrelevant citations, the computerized literature search will retrieve a greater number relevant citations in a shorter time period than conducting the same search by manual means. Also, in addition, due to the greater depth of indexing in the data base, the computer will retrieve citations for which no access is provided in the printed index. In order to fairly evaluate the computerized literature search, both the librarian and the patron need an understanding of its unique features and of its inherent short-comings both in terms of human input and machine manipulation of data. When patrons are dissatisfied with the search results, they should be encouraged to revise the search statement in light of the computer's failure to retrieve relevant citations and to resubmit the search. 11

Cost of a Computerized Literature Search

The fee schedules for computerized literature searches are based on estimates of search analyst time used to process the request, numbers of citations printed, amount of connect time used (if applicable) and a flat rate for billing, in an attempt to partially recover some of the State Library's cost in providing this extended reference service. In processing the computerized literature search, the State Library will provide as many citations as are available in a particular data base up to the maximum number of citations stipulated * for each data base listed below. This would mean that the price for a search retrieving one citation will be the same as for a search retrieving the maximum number of citations. In the two pilot project regions which have LSCA grants, project administrators will use these funds to pay for the computerized literature searches. Their costs will be based on the following schedule:

ERIC: 1-50 citations printed with abstracts at \$9.00 a search

PSYCHOLOGICAL ABSTRACTS: 1-50 citations with abstracts at \$16.00 a search

MEDLARS: 1-100 citations printed without abstracts at \$9.00
a search

BIOSIS Previews: 1-100 citations printed without abstracts at
\$16.00 a search

The New York Times Information Bank: 1-50 citations (or 30
screens) printed with abstracts at \$16.00 a search

Searches done on the BIOSIS Previews data base and the New York Times Information Bank are priced at \$16.00 to compensate the State Library for having to pay connect time charges.

* Note: At the discretion of the search analyst a small number of citations exceeding the maximum allotted for a particular data base may be printed.

Citations will be printed in reverse chronological order giving the most recent ones first. For some data bases this will mean, depending on the search topic, that the patron will only receive a search on the on-line portion because of the restriction placed on the printing of citations. The on-line portion will vary according to the number of available citations and the years covered with each individual data base. The following is a break down of on-line and off-line portions for the SUNY BCN data bases:

BIOSIS Previews: on-line 1976-75/ off-line 1974

Psychological Abstracts: on-line 1975-73/ off-line 1972-67

MEDLARS: on-line 1976-74/ off-line 1973-64

ERIC: on-line 1975-73/ off-line 1972-66

For ERIC and Psychological Abstracts, depending on the search topic, a search with a limitation of fifty citations should retrieve items from both the on-line and off-line portions of the data base. Due to the larger number of citations added per year, the eighty citation limitation placed on MEDLARS and BIOSIS Previews will tend to restrict the search to the on-line portion of the data base. If the quota of citations has not been used in the on-line search, the remainder of the citations will be retrieved from the off-line portion of the data base.

The New York Times Information Bank has all its citations on line. Searches will be conducted on the most current file first and will work backwards until the quota of citations is filled. In the case of this data base, the search analyst will review each citation for relevancy and select those which best suit the search topic. This review is necessary because the indexing in the data base is very board. The price of \$16.00 per search will apply to retrieval of answers to reference questions which require a specific answer and to multi-concept subject searches. Note that reference searches will only be processed for current events which have occurred since the last uncumulated portion of

The Times Index was printed.

The following pricing procedures will apply to all the data bases supplied by the State Library:

Searches that retrieve no citations will be billed at a rate of \$2.00 to partially cover search analyst and computer time and the time involved in informing the reference librarian about the result of the search.

Requests to search the same topic on a number of data bases will be billed as individual searches done on each data base.

Requests containing two or more distinct search topics will be billed as individual searches; or, as an alternative, the first topic will be searched and the other(s) will be returned for further clarification.

Patrons who wish to receive more than the allotted maximum of citations for a search will not have these added costs covered by the LSCA funds provided for the pilot project. Arrangements for printing of additional citations should be made through the project coordinator, Elizabeth Ann Breedlove (518-474-7890).

Format Used to Transmit Search Requests

In the pilot project regions, requests for computerized literature searches will be forward to the NYSILL transmission site (s) in the 3R's region. These requests will be formulated as NYSILL subject requests and will be transmitted once daily with the region's interlibrary loan requests. The subject request format consists of the *R, *I and *N fields. The *R and *I fields contain an identification code for the library submitting the request, a code for the system transmitting the request (if applicable), a code for the type of material requested, a code for the status of the patron, a code to indicate whether the request is eligible for referral (all search requests are coded "I" for ineligible), the first three digits of the dewey call number which represents the subject of the request, and a consecutive number for the request. The *N field contains the subject request and for the purpose of requesting a computerized literature search a special format, not required by NYSILL procedures, will be followed as outlined below:

Data bases (s) to be searched
Purpose of search/Approach to search
Subject terms related to the search topic
Time period to be searched
Language restrictions
Topical restrictions relating to age, sex, human, animal,
grade level, geographical location, etc.
Recent, relevant citation
Name of librarian taking request and telephone number

The *N field is limited to 460 spaces which should be sufficient to transmit most requests for computerized literature searches if the transcription of the request adheres to the prescribed format. If the *N field contains more than 460 spaces (count spaces between words as well as letters and punctuation) the computer will reject the record. *N fields which must exceed the 460 space limitation can be input as two separate records, with the second record having an identical *R and *I field, but receiving the next consecutive request number and a note in the *N field to indicate a continuation of the previous subject request.

The space limitation imposes the necessity to use certain abbreviations for data elements within the *N field.

- data base names will be abbreviated
 - PSYCH Psychological Abstracts
 - MED MEDLARS
 - ERIC ERIC
 - BIO BIOSIS Previews
 - NYT New York Times Information Bank
- purpose of search
 - info information on a topic
 - tp term paper
 - rs research study
- approach to search
 - narrow-fewer retrieved citations which exactly meet
the specified search requirements
 - broad -more general citations with more complete coverage
- time period to be searched
 - cyo - current year only
 - on-line (on-line years only)
 - specify dates, i.e. 1975-72
- language restrictions
 - use the first three letters of each language, i.e. eng,
fre, ger, spa, rus, ita, etc.

-recent journal citation

- use an initial for the forename of the author
- record the title of the article up to the first punctuation mark
- use a standard abbreviation for the journal title
- use standard abbreviation in the journal citation of month, year, volume, number

-librarian's name and telephone number

- use initial for forename
- include area code with telephone number

No abbreviations are to be used when recording the search statement or the subject terms. The reference librarian's name and telephone number must be included in case the search analyst in the State Library needs to contact the person to clarify the search request.

Within the format each data element should be separated by a period. Within the subject term data element, terms are separated by commas. No unnecessary blank spaces should be inserted between data elements.

The standard NYSILL abbreviations for patron status should be used in the *I field and in the Format for a Computerized Literature Search Request form (see page 15):

- S - Student (college and university)
- F - Faculty (community college, college, and university)
- I - Business and Industry
- P - Professional (e.g. physician, teacher, social worker, etc.)
- R - Resident of correctional facilities
- O - Others

The following is an example of a request for a computerized literature search which has been structured in the required format:

*R NCLS-3-103-34

*I R-1-S-370

*N ERIC. RS. BROAD. TEACHING READING AND
SPELLING OF UNPHONETIC BASIC WORDS IN
ENGLISH TO ELEMENTARY STUDENTS. SPELLING,
READING, DECODING (READING), WRITTEN
LANGUAGE, ELEMENTARY SCHOOLS. CYO.
TOWNER, J. EARLY, INTENSIVE PHONETIC
INSTRUCTION AND THE ABILITY OF SECOND,
THIRD, FOURTH GRADE CHILDREN TO PRONOUNCE
SYNTHETIC WORDS. ELEM. SCH. J., V.33: 259-
262, SEPT 1974. D. SMITH. 518-476-9851

FORMAT FOR A COMPUTERIZED LITERATURE SEARCH REQUEST

Date sent to NYSILL trans. site _____

Instruction: Circle appropriate abbreviation where possible

Patron status: S F I P R O

1. Data bases to be searched: MED ERIC NYT PSYCH BIO

2. Purpose of search/approach to search
info tp rs /narrow broad

3. Statement of search topic

4. Subject terms or synonyms

5. Time period to be searched: cyo on-line specify dates _____

6. Language restriction: eng ger fre rus spa other: _____

7. Topical restrictions:

8. Relevant, recent journal citation:

9. Librarians name and telephone number (use initial for forename/include area code):

FOR USE BY NYSILL TRANSMISSION SITE

Date received _____ Date transmitted _____

Request sent from interview site by _____ mail, _____ teletype,
_____ telephone, _____ delivery system

Reference librarians within the pilot project regions who do not use the telephone or the teletype to transmit their requests to the NYSILL transmission site in their region, will use the form on page 15. If the form is not used, information must be supplied for all the data elements included in the *N field and information for the patron's status and the first three digits of the dewey call number which represents the search topic. (See Appendix IV for a list of dewey call numbers used in NYSILL transactions.)

Receipt of the Computerized Literature Search Print-Out

Within six to ten days after submitting the search request, the reference librarian will receive by mail a computer print-out of citations and a form explaining how to interpret the citations. Before contacting the patron, the reference librarian should review the search strategy used to retrieve the citations and look over the citations to judge their relevancy to the search topic. The patron should then be contacted by telephone and asked to pick-up the print-out at the library. When the patron comes to the library, the reference librarian should explain how the citations are formatted and explain how the documents listed in the citations can be retrieved. A computerized literature search often produces a number of esoteric citations for in-house reports produced by institutions or other types of hard to locate periodical literature. The reference librarian should advise the patron on the availability of the materials and encourage the patron to utilize available abstracts and be selective about requesting items on interlibrary loan. The review of the print-out with the patron will also provide an opportunity to inform the patron about resources available in the library and of any open access policy in effect that would allow the patron to borrow material directly from other libraries in the 3 R's region.

Collection of Statistics for the Pilot Project

The three forms included in these procedures - The NYSL Computer Search Request, Format for a Computerized Literature Search Request, and the Evaluation Form are designed to gather information about the volume of requests generated in the region, the data bases queried, the type of patron who used the service, the patron's reason for requesting the computerized literature search, the amount of turnaround time involved in requesting the search and receiving the citations, the time it takes the reference librarian to process the requests and give supplementary reference services, the time it takes teletype operators at NYSILL transmission sites to transcribe the requests, and the degree of patron satisfaction with the service. Both pilot project regions will use the same forms to insure consistency in the data that is collected.

The NYSL Computer Search Request form, on page 18, serves two purposes:

- 1) to record necessary information about the patron and the subject request; and
- 2) to record statistics on the time taken in processing the request, the volume of requests processed within the region and by individual reference librarians, the time it takes to receive citations from the State Library and deliver them to the patron, the method used to conduct the reference interview, the patron's status (i.e. student, faculty, professional, or other), and the reason for requesting the search. The section on the time the reference librarian spends in processing the request will be used in determining the reimbursement that will be paid to the library and will also serve as the LSCA grant administrator's justification for the payment of this money. Reference librarians should xerox two copies of this form and send one to the grant administrator in the region and one to the coordinator of the project, Elizabeth Ann Breedlove, Division of Library Development, 99 Washington Avenue, Room 1505, Albany, New York 12230. These forms and completed evaluation forms should be sent each month to both parties.

NYSL COMPUTER SEARCH REQUEST

Date _____

Librarian _____ Library _____

Patron's name _____ Phone _____

Address _____

Patron's library _____ Patron status _____

Date search requested _____ Date citations received _____ Date
patron received citations _____

Interview conducted _____ in person _____ by phone.

Has patron used the service before _____ yes _____ no

Reason for search _____ work related _____ academic studies _____ research _____ personal

Time spent in conducting reference interview _____; formulating search strategy _____;
giving supplementary reference service _____; instructions on retrieving documents _____;
conducting evaluation interview _____; telephoning patron _____.

Subject Request: Please give a concise description of the topic and list possible
subject terms. (If the topic can best be searched under a single term, list the term,
but also provide alternate subject terms. Requests lacking alternate terms will not
be processed)

Date citations needed:

Time period to be searched: _____ current year only; _____ on-line years only; specify _____
Type of search: _____ narrow, few retrieved citations which exactly meet specifications
_____ broad, more general citations with more complete coverage

For MEDLARS and Psychological Abstracts searches specify acceptable languages

For all data bases indicate appropriate topic restrictions:

- _____ human subjects only
- _____ animal experiments only (specify animal)
- _____ age group (specify)
- _____ grade level (specify)

List a recent relevant citation:

The evaluation interview provides essential feedback to the reference librarian, the regional project administrator, and the DLD coordinator on patron response to the service. Approximately three to four weeks after the patron has received the citations, the reference librarian will call him/her and using the evaluation form designed for the pilot project (on page 20) ascertain the degree of satisfaction with the citations and whether the patron was able to locate the materials provided in the citations.

The Format for a Computerized Literature Search (on page 15) should be used 1) by reference librarians to communicate the search request to the teletype operator at the NYSILL transmission site; or 2) by personnel at the transmission site receiving this information by telephone. The form will be used to record the data elements to be included in the *N field and to keep statistics on the turn-around time involved in sending the request from the interview site to the transmission site, and the time that elapses before it is transmitted to the State Library. The form will also serve as a record of the volume of requests transmitted by a site and will be used by the project administrator to justify reimbursing transmission sites for operator time spent in the pilot project. If there is more than one NYSILL transmission site in a pilot project region, these forms should be forwarded once a month to the project administrator. The project administrator will be responsible for providing the DLD coordinator with monthly statistics on the volume of requests transmitted, the average time it takes for a request to travel from the interview site to the transmission site, the average time which elapses before the request is transmitted to the State Library, and how each request was transmitted from the interview site (i.e. phone, teletype, mail, delivery system). The site will also be responsible for determining the average amount of time it takes an operator to transcribe a request. This figure will be used as part of the justification for reimbursing the transmission site.

COMPUTERIZED LITERATURE SEARCH EVALUATION FORM

Patron's name _____ Status _____

Subject of search _____

Data base(s) searched: _____ ERIC, _____ Psychological Abstracts, _____ MEDLARS,
_____ New York Times Information Bank, _____ BIOSIS Previews

1. Do you feel the search was of _____ considerable value, _____ moderate value,
_____ slight value, _____ no value?
2. What percentage of the citations were relevant and useful to your study? _____ all,
_____ more than half, _____ less than half, _____ none.
3. How many citations did you expect? _____ none, _____ few, _____ many.
4. If less than half of the citations turned out to be relevant or useful, please
indicate what was wrong with the others (e.g., too many animal vs. human studies,
too many non-research studies, too many peripheral or general studies, wrong age
range, etc. _____

5. Did you receive the citations in sufficient time to meet the deadline for your
study? _____ yes, _____ no.
6. The interviewer spent _____ too much, _____ enough, _____ too little time discussing
the exploring my search topic.
7. I was given _____ too much, _____ enough, _____ too little background explanation
on what kinds of information may be retrieved, amount of time before delivery of
print-out, how to retrieve documents, explanation of print-out.
8. Except for the saving in time, could you have done just as well with a manual
search of the appropriate indices? _____ yes, _____ no.
9. Would you use the service again? _____ yes, _____ no.
10. Assuming that the library could only continue to provide the service by instituting
a fee, would you be willing to pay _____ \$1., _____ \$5., _____ \$10., _____ \$15.,
_____ \$20., _____ \$25., _____ \$35., _____ \$50., or _____ I would not be willing to pay.
11. Of the articles or documents you tried to locate _____ all, _____ more than half,
_____ less than half, _____ none were available in your _____ public, _____ academic,
_____ special library.
12. Of the articles or documents you tried to locate _____ all, _____ more than half,
_____ less than half, _____ none were available through interlibrary loan.
13. Other comments or suggestions: _____

Librarian conducting evaluation _____
3R's pilot project region _____

Questions concerning any aspect of the pilot project should be directed to the project coordinator, Elizabeth Ann Breedlove, at 518-474-7890.

APPENDIX I

Subject and Scope of Materials Indexed in the ERIC, MEDLARS, and Psychological Abstracts Data Bases Supplied By The

State University of New York Biomedical Communication Network

The ERIC, MEDLARS and Psychological Abstracts data bases offered by the University of New York Biomedical Communication Network (widely known by its acronym SUNY BCN) cover the subject areas of medicine, nursing, dentistry, psychology, and education. The following descriptions attempt to provide an idea of the scope of subjects and types of materials indexed, the years covered, and the overall size of the various data bases. With the exception of the MEDLARS data base which only indexes specialized, clinical material of interest to physicians, dentists, nurses and researchers, the ERIC and Psychological Abstracts data bases provide a wide range of citations to educational and psychological literature, both of a general and technical nature, which would be of interest to the general public, college and graduate students, professionals in teaching, social work, counseling, and those interested in advanced research materials. Patrons seeking medical information written for the layman should be directed to the various popular medical and scientific journals, to general medical reference works, and to the Readers Guide to Periodical Literature for access to specific topics.

ERIC DATA BASE

The ERIC data base produced by the National Institute of Education contains citations to the literature of education and to related subject areas covering such topics as library and information science, budgeting, automation, and administration. It consists of two main files: Resources in Education (RIE) which indexes research reports files by contractors and grantees on the results of funded education research; and the Current Index to Journals in Education (CIJE) which indexes articles from more than 500 education and education-related journals. The Resources in Education file contains approximately 90,000 citations covering the period from 1966 to the present. The Current Index to Journals in Education file covers 110,000 citations from 1969 to the present. In total, there are presently more than 200,000 citations with abstracts in the ERIC data base. Approximately 35,000 entries are added annually.

General areas of educational information covered in the ERIC data base include the fields of career education, counseling services, the disadvantaged, early childhood education, exceptional children, higher education, reading and communication skills, instruction in various subject areas, teacher education, tests, measurement, evaluation, and many other topics.

Psychological Abstracts Data Base

The Psychological Abstracts data base produced by the American Psychological Association abstracts materials in psychology and related disciplines from more than 2,000 periodicals and monographs published throughout the world. The citations are derived from over 800 psychological and behavioral science journals, plus a wide range of books, technical reports, conference proceedings and dissertation abstracts. The data base contains approximately 180,000 citations with abstracts and covers the period from 1967 to the present. New entries are added at the rate of approximately 25,000 per year.

In general, Psychological Abstracts is concerned with indexing literature on all behavioral issues concerning humans or animals. It covers the fields of applied psychology, cognitive processes and motivation, communication, cultural influences and social issues, developmental and educational psychology, personality, physical and psychological disorders, social behavior, and many other topics.

MEDLARS Data Base

The MEDLARS data base is produced by the National Library of Medicine and contains more than half a million citations from articles indexed in some 3,000 worldwide biomedical periodicals indexed in Index Medicus, International Nursing Index and Index to Dental Literature. The data base covers the years from 1964 to the present. It is searched through use of the controlled vocabulary Medical Subject Headings (MeSH), MeSH tree numbers, and title words. Full bibliographic information is available for each citation but no abstracts are printed. An average of 225,000 citations are added yearly.

The following types of medical topics are covered in the MEDLARS data base: human anatomy and physiology, animal and plant morphology and physiology, chemicals and drugs, analytical, diagnostic and therapeutic techniques and equipment, psychiatry and psychology, prevention and control of disease, biological and physical sciences, health care, nursing, veterinary medicine, the anthropological, educational, sociological, industrial, agricultural, and technical aspects of medicine, and the use of information science and communications in medicine.

BIOSIS Previews

The BIOSIS Previews data base is published by the BioSciences Information Services of Biological Abstracts (BIOSIS) which contains citations available in Biological Abstracts and Bioresearch Index. The data base covers original reports and reviews of research in biology and biomedicine dating back to 1969. Approximately 140,000 items published in more than 8,000 worldwide serials as well as in books, monographs, conference proceedings and research communications are added to the data base each year. Current citations are available in the data base approximately five weeks before they appear in the printed abstract.

BIOSIS Previews covers the entire life sciences field including microbiology, plant and animal sciences, biomedicine, agriculture, pharmacology, ecology, and other interdisciplinary areas such as biochemistry, bioengineering and biophysics.

APPENDIX I

THE NEW YORK TIMES INFORMATION BANK

The New York Times Information Bank is a computer searchable data base of information indexed from The New York Times and 72 magazines and newspapers which include Consumer Reports, Business Week, The Washington Post, Christian Science Monitor, Barron's, Ebony, Le Monde, Vogue, Newsweek, Time, Automotive News, The London Sunday Times, Science, Reader's Digest, Wall Street Journal, Atlantic Monthly, McCall's, U.S. World and World Report, Jet, Psychology Today, Fortune, and many others. The Bank is designed to provide fast retrieval of current events information in such areas as politics, economics, history, finance, law, education, biographical sketches, labor relations, public health, penology, conservation, energy control, pollution control, space exploration, housing, etc. It can be used to retrieve information to answer ready reference questions as well as to retrieve citations for multi-faceted research topics dealing with several subjects within a specified relationship. At present, the data base contains approximately 1,000,000 citations and abstracts and grows at a rate of 20,000 citations per month.

The terminal used to search The New York Times Information Bank is connected by a telephone line to a computer in New York City. It operates in an "on-line" mode which allows the user to submit requests for information directly to the computer, alter the search in response to the number and type of citations contained in the data base, and receive an immediate answer in the form of a list of relevant citations which are displayed on the terminal screen. The data base can be searched through the use of subject descriptors, and personal, geographic and organizational names. Each citation has an abstract ranging from one or two sentences to three or four hundred words which can be printed by means of a high speed printer connected to the terminal. Often, the abstract will supply all the information needed for many reference questions or present enough information that it will be unnecessary to retrieve the actual newspaper or magazine article.

The largest portion of the material in the data base is from The New York Times, beginning January 1, 1969. The data base is current and cumulative within 5-9 days of publication. Everything in the newspaper is indexed except: 1) obituaries of New York City residents, unless known outside metropolitan New York City; 2) letters of the editor, except when written by prominent people or when dealing at length with controversial topics; 3) paid advertisements, except those dealing with political or controversial topics; 4) television listings; 5) sports scores; and 6) stock quotations.

Indexing of non-New York Times publications is more selective. Current events or news stories, especially when carried by a wire service, are indexed only once when they first appear in The New York Times to avoid repetition and duplication of major news items. Material from non-New York Times publications is retrospective back to 1971; and is not as current as the Times material with a time lag of 2 weeks to 9 months before it is entered into the data base. The items not indexed are the same as for The New York Times and also include: 1) news items of only local interest; 2) works of fiction; 3) light, entertaining pieces; and 4) reviews of books and movies.

The New York Times Information Bank is used most successfully for retrieving information for the following types of searches:

To locate information about a recent event, whether a news story, obituary, review of books or theatrical events, or presidential appointment, etc., that is too recent to have appeared in The New York Times printed index. (The biweekly printed index has a time lag of up to 12 weeks. The annual cumulation of the index has a time lag of approximately 9 to 10 months, making a manual search of the last two years of the index long and tedious.)

To locate information about a subject that does not have a direct entry in the printed index: for example, the group "Vietnam Veterans Against the War" has no direct listings, only "see also" references to such subjects as: Vietnam--General Politics--Reactions in U.S.; Presidential Election 1972; U.S. Armament; Veterans--U.S.; Watergate Affair; and Taxation--Federal Taxes--Income Tax. The on-line search system, however, quickly located 260 articles on the group from January 1, 1969 through March 5, 1975.

To locate material simultaneously dealing with several topics or concepts. This type of search is very laborious, or sometimes impossible, to do manually. For example: articles on the Middle East crisis and its affect on the oil policy of the U.S.; articles dealing with economic forecasts in the automobile industry in Great Britain; or articles on how Watergate affected the Republicans in the elections of 1974.

To find specific types of material. For example, only editorials on Abortion; articles on travel in Italy that have illustrations; interviews with President Ford; articles on oil production which are basically statistical.

To selectively locate information from periodicals which are not indexed elsewhere or whose current printed index has a time lag of several months. For example, materials from the Los Angeles Times, Washington Post, Women's Wear Daily, and Pittsburgh Courier.

Some typical information searches requested from the New York Times Information Bank:

- the name of the new president of General Motors
- articles about strikes and collective bargaining by public employees, especially in New York State
- articles about solar energy heating systems for homes
- articles about women in the legal profession
- articles about video games
- exodus of the middle class from New York City
- review of the play "A Chorus Line"
- obituary for James Swinnerton (cartoonist)
- articles on Japan's reaction to India's detonating an atomic bomb
- article about Henry Kissinger by a certain columnist which appeared in the NYT sometime in September or October 1973.
- editorials on the Duryea indictment
- statements made by the John Birch society on education.

COMPUTERIZED LITERATURE SEARCHING

What it is, Why its better and When to do it

A computerized literature search is processed by means of an automated information retrieval system which allows the operator to query a machine readable data base composed of document citations for monographs, journal articles, and report literature. The operator translates a search request into the terms used in the computer's index, and when these terms are input to the system, the computer matches them against its index, selects citations containing those terms, and upon command, either displays or prints those citations and any available abstracts. There are currently a wide range of data bases in the social, applied and pure science that may be searched by computer. Many of these data bases contain the citations used to compose and update printed indexes and abstracting services. Examples of such bases include the ERIC data bases which contains citations for the printed indexes Resources in Education (RIE) and Current Index to Journals (CIJE); the MEDLARS data base contains citations found in Index Medicus, International Nursing Index; and Index to Dental Literature; and the Psychological Abstract data base contains the citations for the printed index of the same name.

In the cases where the contents of the data base is the same as that of the printed index, the patron benefits from a search performed on a data base in that less time is required to do a computer search, physical manipulation of multiple volumes and issues is avoided, and only one search need be performed to obtain citations from the retrospective years covered in the data base. Also, unlike the printed indexes which are not cumulated until well after the year has ended, each update input to the data base is integrated with the other on-line citations.

There are other benefits to computer searching beyond the speed and ease with which a search can be done.

1. The computer has the capability of coordinating two or more subject terms and selecting only those citations which have the specified overlapping subject areas and which satisfy the particular request for information. In searching the topic:
 the effect of hypnosis on body temperature to relieve
 migraine headaches
 the patron performing a manual search would have to scan all the entries under hypnosis, body temperature, and migraine headache looking for citations which combined these three concepts. Often, it would be necessary to read the articles to determine if they provide relevant information. With a machine search this matching is done automatically and in the case of citations retrieved from ERIC and Psychological abstracts the patron receives an abstract which further aids the choice of relevant documents.
2. The computer is able to search a number of related terms for a topic in one step thereby broadening the scope of the search to include citations which contain these related terms. As an example, the related terms in the following search topic are as follows
 teaching language skills for disadvantaged children

language skills	cultural disadvantaged	children
language ability	socially disadvantaged	migrant children
speech skills	disadvantaged groups	minority group children

verbal ability
English education
listening skills
listening comprehension

disadvantaged youth

Using a manual index the patron would have to look-up each related term to be sure that all relevant citations had been retrieved. Another capability of the computer is to exclude related terms or other aspects of the topic from being searched and to only retrieve those citations which do not contain the term. In the above search, the patron could state that studies on migrant children were not wanted.

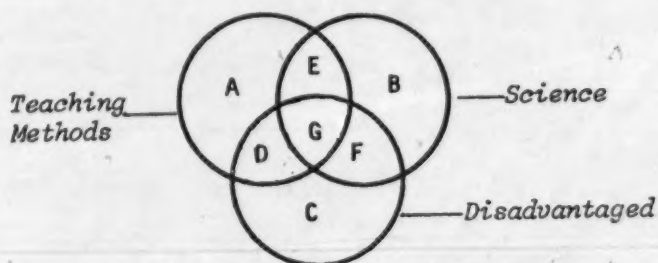
3. Indexers preparing citations for inclusion in indexing and abstracting tools assign a subject term to every significant concept in the document, but only the most significant terms appear in the printed index. Secondary terms assigned to the document are indexed in the data base and can be searched, thereby giving the patron a wider subject access to relevant documents.
4. The computer provides access to subject terms or specific types of entries not recorded in the printed index or in the thesaurus of controlled vocabulary which determines what terms are used. The operator can do natural language or free text searching in many data bases which retrieves any significant word or group of words appearing in the author, title, institutional affiliation, sponsoring agency, or abstract section of the data base citation. This allows the patron to retrieve citations on topics which are too new to have a term assigned to them in the index and to retrieve citations searched through the use of acronyms, names of methods and theories, trade names, names of community, educational or industrial organizations, conferences, etc. which are not included in the controlled vocabulary list.
5. Access to multiple data bases allows for and encourages a multidisciplinary approach to researching a topic. Patrons unfamiliar with indexes in another related field are able to retrieve citations for related aspects of their search topics. Multi-data base searches are often run on the Psychological Abstracts and ERIC data bases and on the MEDLARS and Psychological Abstracts data bases. For example, a patron may want both the clinical and psychological aspects of a certain disease. The indexing in the MEDLARS data base makes it difficult to retrieve psychological aspects, but this information is readily available in the Psychological Abstracts data base.

A search topic is suitable for a computerized literature search when the topic includes two or more concepts which must be present in the same citation in order to retrieve relevant documents. An exception to this rule is when the search concerns a single term topic which is not included in the printed index. (see item 4)

A search topic is not suitable for a computerized literature search when it is represented by a single subject term listed in the printed indexes or for an author's name. In these cases, it is more efficient to xerox the pages in the index. The same approach would hold true if the patron is looking for only one subheading of one particular subject which is also available in the printed index. It makes little sense to use a computer to print citations which are already in print. Also, the request to search by a single subject term often indicates that the patron has not sufficiently defined the research topic and that a computerized literature search would produce many citations which are irrelevant to what the patron will ultimately want, once the search topic has been adequately defined.

Boolean Search Strategy

The strategy used in searching with the aid of a computer is generally based on set theory and Boolean logic. Drawn below is a Venn diagram consisting of three overlapping circles, A, B, and C. The areas of overlap of each pair of circles are (E&G), (D&G), and (F&G). The area of overlap for all three circles is called G.



As an example, let us assume that a requestor has asked for information on teaching methods for the disadvantaged in the science area. Circle A could represent the reports in ERIC indexed by the descriptor Teaching Methods, Circle B those indexed by Science and Circle C those indexed by Disadvantaged. The areas of overlap (E&G), (D&G), and (F&G) then represent those documents indexed by any pair of descriptors and Area G represents those indexed by all three descriptors. In phrasing a search question concerning material on methods of teaching science to the disadvantaged, the searcher might say he wants those documents indexed by both the terms Teaching Methods and Disadvantaged, which are those documents in Areas D and G. Or the searcher might ask for documents indexed by Teaching Methods and either Disadvantaged or Science. This would be those documents in Areas D, E, and G. If the searcher decided to look at documents indexed by Teaching Methods and Science, but not in the area of the Disadvantaged, this would

be those in both A and B but not in C, resulting in Area E only, excluding area G. A search for items indexed by all three of the terms Teaching Materials, Disadvantaged, and Science would restrict itself to Area G. All combinations are based on the Boolean logical operators AND, OR, NOT. "AND" indicates those things common to two or more groups. "OR" those things in two or more groups, whether or not in common, and "NOT" those things not in a particular group or groups.

When performing a computer search, one is defining all the material included in each of these circles. The material in each circle is usually called a "set." For instance, the search discussed above might be built up in part as follows: Set A (Circle A) would include material indexed under the ERIC descriptors Teaching Methods, Teaching Techniques, Effective Teaching, Teaching Procedures, and Educational Strategies. The computer would sort through all the ERIC citations, storing those that had the specified descriptors and dropping out duplications. Set C might be defined as those ERIC citations indexed with the descriptors Disadvantaged Youth, Culturally Disadvantaged, Economically Disadvantaged, Socially Disadvantaged, and Low Income Groups. The computer would again sort through all the ERIC citations, storing those that met these specifications. The computer would then compare the citations in Set A with those in Set C. If a citation appeared in both sets (areas D and G), it should meet the criteria of containing information about some aspect of teaching some segment of the disadvantaged population. The same type of building would occur with Set B, Science, using descriptors such as Science Instruction, Biology Instruction, Chemistry Instruction, and Science Courses.

These sortings and comparisons can be done in a matter of seconds by the computer. Computer searching systems vary in their approach to performing Boolean operations, but the method of defining the sets and the results are the same from the viewpoint of the requestor.

The above example illustrates that an understanding of ERIC indexing is important to anyone preparing a search strategy.

Taken from: Yarborough, Judith. How to Prepare for a Computer Search of ERIC: A Non-Technical Approach. Stanford, California, ERIC Clearinghouse on Information Resources, Stanford Center for Research and Development in Teaching, 1975.

APPENDIX IV

Outline of Dewey Decimal Classification

For Use in the

New York State Interlibrary Loan Network

- 000 General works (AZ)
 - 010 Bibliography (Z)
 - 020 Library science (Z665)
 - 030 General encyclopedias (AE)
 - 040 General collected essays (PN6)
 - 050 General periodicals (AP)
 - 060 General societies (AS)
 - 070 Newspaper journalism (PN4700)
 - 080 Collected works (AC)
 - 090 Manuscripts & rare books (Z)

- 100 Philosophy (B)
 - 110 Metaphysics (BD)
 - 120 Metaphysical theories (BD)
 - 130 Branches of psychology (BD)
 - 140 Philosophical topics (B)
 - 150 General psychology (BF)
 - 160 Logic (BC)
 - 170 Ethics (BJ)
 - 180 Ancient and medieval (B)
 - 190 Modern philosophy (B)

- 200 Religion (BL)

- 300 Social sciences (H)
 - 301 Sociology (HM)
 - 310 Statistics (HA)
 - 320 Political science (J)
 - 330 Economics (HB)
 - 340 Law (K)
 - 341 International law (JX)
 - 342 Constitutional law and history (JQ)
 - 343 Criminal law (K)
 - 344 Marital law (K)
 - 345 United States statutes and cases (K)
 - 346 British statutes and cases (K)
 - 347 Law treatises (K)
 - 348 Canon law (Ecclesiastical law) (BL)
 - 349 Foreign law (K)

- 350 Public administration (JF)
- 360 Social welfare (HV)
- 370 Education (L)
- 380 Public service and utilities (HD2761)
 - 381 Internal commerce (HE)
 - 382 International commerce (HF)
 - 383 Postal communication (HE)
 - 384 Telecommunication (HE)
 - 385 Railroad transportation (HE)
 - 386 Inland waterway transportation (HE)
 - 387 Marine and air transportation (HE)
 - 388 Highway and urban transportation (HE)
 - 389 Metrology and standardization (T50)
- 390 Customs and folklore (GR,GT)
- 400 Language (P)
 - 410 Comparative (P)
 - 420 English and Anglo-Saxon (PE)
 - 430 Germanic languages (PF)
 - 440 French, Provençal Catalan (PC2001)
 - 450 Italian, Rumanian (PC1001)
 - 460 Spanish, Portuguese (PC4001)
 - 470 Latin and other Italic (PA2001)
 - 480 Classical and modern Greek (PA)
 - 490 Other languages
 - Africa (PL)
 - China (PJ)
 - India/Pakistan (PJ)
 - Japan (PJ)
 - Middle East (PK)
 - Slavic (PG)
 - Southeastern Asia (PJ)
- 500 Pure science (Q)
 - 510 Mathematics (QA)
 - 520 Astronomy (QB)
 - 530 Physics (QC)
 - 540 Chemistry and allied sciences (QD)
 - 550 Earth sciences (QE)
 - 551 Geophysics and related subjects (QE)
 - 552 Petrology (QE)
 - 553 Economic geology (QE)
 - 554 Geology of Europe (QE)
 - 555 Geology of Asia (QE)
 - 556 Geology of Africa (QE)
 - 557 Geology of North America (QE)
 - 558 Geology of South America (QE)
 - 559 Geology of other parts of the world (QE)
 - 560 Paleontology (QE700)
 - 570 Anthropology and biology (GN,QH301)
 - 571 Prehistoric archeology (CC)
 - 572 Anthropology (GN)

- 573 Physical anthropology (GN)
- 574 Biology (QH301)
- 575 Organic evolution (QH301)
- 576 Microbiology (QR)
- 577 Philosophy of biology (QH301)
- 578 Microscopes and microscopy (QH201)
- 579 Collection and preservation (QH)
- 580 Botanical sciences (QK)
- 590 Zoological sciences (QL)

600

- Technology (T)
- 607 Technical education and research (T60)
- 608 Patents (T201)
- 610 Medical sciences (R)
- 620 Engineering (TA)
- 630 Agriculture (S)
- 640 Home Economics (TX)
- 650 Business (HF5001)
- 660 Chemical technology (TP)
- 669 Metallurgy (TN)
- 670 Manufactures (TS)
- 680 Other manufactures (TS)
- 690 Building construction (TH)

700

- The arts (N)
- 710 Landscape and civic art (SB469)
- 720 Architecture (NA)
- 730 Sculpture (NB)
- 740 Drawing and decorative arts (NC)
- 750 Painting (ND)
- 760 Prints and print making (NE)
- 770 Photography (TR)
- 780 Music (M)
- 790 Recreation (GV)

800

- Literature (PN)
- 810 American literature (PS)
- 820 English literature (PR)
- 830 German literature (PT)
- 839 Other Germanic (PT)
- 840 French literature (PQ1)
- 849 Provençal and Catalan (PC2001)
- 850 Italian literature (PQ4001)
- 859 Rumanian (PC601)
- 860 Spanish literature (PQ6001)
- 869 Portuguese and Galician (PQ9000)
- 870 Latin literature (PA6000)
- 879 Other Italic (PA6000)
- 880 Greek literature (PA3050)
- 889 Byzantine and Hellenic (PA3050)

- 890 Other literatures (PL)
- 891 Other Indo-European (PL)
- 892 Semitic and Hamito-Semitic (PJ)
- 893 Hamitic literatures (PJ1001)
- 894 Finno-Ugric and other (PH)
- 895 Far Eastern literatures (PL)
- 896 African literatures (PL)
- 897 North American Indian (PM)
- 898 South American Indian (PM)
- 899 Austronesian (PL)

900

History (D)

- 910 Geography (G)
- 920 Biography of individuals not clearly belonging to any specific subject (CT)
- 930 Ancient history (DE)
- 940 Europe (D)
 - 941 Scotland and Ireland (DA750)
 - 942 England (DA)
 - 943 Germany (DD)
 - and central Europe
 - 944 France (DC)
 - 945 Italy (DG)
 - 946 Spain (DP)
 - and Portugal (DP501)
 - 947 USSR and adjacent areas (DK)
 - 948 Scandinavia (DL)
 - 949 Other areas of Europe
 - 949.2 Netherlands (DH,DJ)
- 950 Asia (DS)
 - 951 China (DS701)
 - and Korea (DS901)
 - 952 Japan (DS801)
 - and adjacent areas
 - 953 Arabian Peninsula (DS201)
 - 954 Subcontinent of India (DS)
 - 955 Iran (Persia) (DS251)
 - 956 Near East (Middle East) (DS41)
 - 957 Siberia (DK750)
 - 958 Central Asia (DS)
 - 959 Southeast Asia (DS)
- 960 Africa (DT)
- 970 North America (E)
 - 971 Canada (F1001)
 - 972 Mexico and Caribbean (F1201)
 - 973-979 United States (F)
 - 980 South America (F1401)
 - (includes works on Latin America)
 - 990 Pacific Ocean islands (DU)
 - 997 Atlantic Ocean islands
 - 998 Arctic Regions
 - 999 Antarctic Regions